



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

CODE OF BOTANICAL NOMENCLATURE

A Nomenclature Commission was appointed by the Botanical Club of the American Association for the Advancement of Science at a meeting held in Washington, D. C., January 2, 1903. At this meeting a series of rules for nomenclature was presented and referred to the Commission, which has carefully considered all the principles involved, and has tested the application of the principles to all kinds of cases. The Commission has found that, for purposes of more exact statement, and to reach more satisfactory results, some rearrangement and modification of the rules as proposed at this Washington meeting are advisable. The principles have been carefully compared with those advanced in the Laws for Nomenclature adopted at the Paris Botanical Congress in 1867, and at the Botanical Congress held in Genoa in 1892, together with propositions advanced by various groups of botanists, and by individuals, during the past few years, and the methods pursued by zoologists have also been studied ; all with the plan of obtaining a code of nomenclature which will best satisfy all interests involved. The action of the International Botanical Congress, held in Paris in 1900, by which the subject of nomenclature is to be brought before the International Congress to be held at Vienna in 1905, has been considered, and the decision there reached to base a new set of rules upon those adopted by the Paris Congress of 1867 has had our careful attention. This action contemplates the modification of the Paris Laws of 1867 by amendment, abandonment, or substitution of its various articles. We have found, however, that the Paris Laws of 1867 are not satisfactorily adaptable to precisely this consideration, for the reasons that their arrangement is not philosophical in the light of modern experience and knowledge, that many important principles are either not recognized, or else given altogether too meager consideration, and that there is a want of definite and exact statement, which leads to ambiguity. We therefore recommend, and propose also to move in the Vienna Congress of 1905, that, in accordance with the provisions of the

committee on organization of the Congress of 1905, the code of laws of 1867 be amended by the abandonment of all its articles and the substitution of the appended code.

J. C. ARTHUR, *Professor of Plant Physiology and Pathology, Purdue University.*

JOHN HENDLEY BARNHART, *Editor, Torrey Botanical Club.*

N. L. BRITTON, *Director-in-Chief, New York Botanical Garden.*

STEWARTSON BROWN, *Conservator, Botanical Section, Academy of Natural Sciences of Philadelphia.*

FREDERIC E. CLEMENTS, *Assistant Professor of Botany, State University of Nebraska.*

O. F. COOK, *Botanist in charge of Investigations in Tropical Agriculture, United States Department of Agriculture; Assistant Curator (Cryptogamia), United States National Herbarium.*

JOHN M. COULTER, *Professor of Botany, University of Chicago; Editor, Botanical Gazette.*

FREDERICK V. COVILLE, *Chief Botanist, United States Department of Agriculture; Curator, United States National Herbarium.*

F. S. EARLE, *Director, Estación Agronómica Central de Cuba.*

ALEXANDER W. EVANS, *Assistant Professor of Botany, Yale University.*

TRACY E. HAZEN, *Tutor in Botany, Barnard College, Columbia University.*

ARTHUR HOLLICK, *Assistant Curator (Palaeobotany), New York Botanical Garden.*

MARSHALL A. HOWE, *Assistant Curator (Algae), New York Botanical Garden; Editor, Torreyia.*

F. H. KNOWLTON, *United States Geological Survey; Custodian (Mesozoic Plants), United States National Museum.*

GEORGE T. MOORE, *Physiologist, in charge of Laboratory of Plant Physiology, United States Department of Agriculture; Custodian (Algae), United States National Herbarium.*

E. L. MORRIS, *Head of the Department of Biology, Washington (D. C.) High Schools.*

WILLIAM ALPHONSO MURRILL, *New York Botanical Garden.*

H. H. RUSBY, *Professor of Physiology, Botany and Materia Medica, and Dean of the Faculty, College of Pharmacy of the City of New York.*

C. L. SHEAR, *Plant Pathologist, United States Department of Agriculture.*

WILLIAM TRELEASE, *Director, Missouri Botanical Garden.*

LUCIEN M. UNDERWOOD, *Professor of Botany, Columbia University.*

DAVID WHITE, *United States Geological Survey; Custodian (Palaeozoic Plants), United States National Museum.*

WILLIAM F. WIGHT, *Assistant, Geographic Botany, United States Department of Agriculture.*

MEMBERS AND ALTERNATES OF THE NOMENCLATURE COMMISSION

CODE OF BOTANICAL NOMENCLATURE

PART I. PRINCIPLES.

1. The primary object of formal nomenclature in systematic biology is to secure stability, uniformity and convenience in the designation of plants and animals.
2. Botanical nomenclature is treated as beginning with the general application of binomial names of plants (Linnaeus' *Species Plantarum*, 1753).
3. Priority of publication is a fundamental principle of botanical nomenclature. Two groups of the same category cannot bear the same name.

NOTE.—Previous use of a name in zoology does not preclude its use in botany.

4. The application of a name is determined by reference to its nomenclatorial type.

PART II. CANONS.

Section I. Categories of Classification.

CANON 1. Connected or coherent groups of individuals are termed species.

CANON 2. Species are grouped into genera ; genera into tribes ; tribes into families ; families into orders ; orders into classes ; classes into phyla.

NOTE.—Order is preferable to cohort and phylum to division, conforming to zoological usage.

CANON 3. When additional categories are necessary for the convenient presentation of relationships, they are to be obtained by the recognition of intermediate groups, the names of which are formed by prefixing sub- to the names of the above principal categories.

EXAMPLES.—Subspecies, subgenus, subfamily, suborder.

CANON 4. Other terms, such as group, section, series, division, and branch, may be used for more convenient temporary arrangement under the above categories, but their names are to have no validity in formal taxonomy.

NOTE.—The term variety is relegated to horticultural usage.

Section II. Formation of Names.

CANON 5. Specific and subspecific names consist of Latin or Latinized adjectives or substantives, the latter being either nominatives in apposition or genitives.

EXAMPLES.—*Hookerianus*; *europæus*; *vulgaris*; *heterophyllus*; *malvicola*; *Tulipifera*; *Tuna*; *Engelmanni*; *Senorae*; *Trifolii*.

CANON 6. Generic and subgeneric names consist of Latin or Latinized substantives, or equivalent terms.

EXAMPLES.—*Rosa*; *Convolvulus*; *Hedysarum*; *Bartramia*; *Liquidambar*; *Couroupita*; *Tsuga*; *Gloriosa*; *Impatiens*; *Manihot*.

CANON 7. Names for subtribes, orders, and intervening groups, are formed from names of component genera.

(a) For names of tribes add -eae, of families -aceae, of orders -ales, to the stem of the generic name.

EXAMPLES.—*Roseae*; *Rosaceae*; *Rosales*.

(b) For names of subtribes add -anae, of subfamilies -atae, of suborders -ares, to the stem of the generic name.

EXAMPLES.—*Rosanae*; *Rosatae*; *Rosares*.

CANON 8. Names for subclasses and higher groups consist of plural Latin or Latinized substantives.

EXAMPLES.—*Monocotyledones*; *Angiospermae*; *Pteridophyta*.

Section III. Publication of Names.

CANON 9. A specific or subspecific name is published when it has been printed and distributed with a description (or in palaeobotany a figure), or with a reference to a previously published description.

EXAMPLES.—*Coursetia arborea* Griseb. Fl. Brit. W. Ind. 183 (1859), is published with a description; *Cynanchum nivale* Nym. Syll. Fl. Eur. 108 (1855), is published with a reference to the previously described *Vincetoxicum nivale* Boiss. & Heldr.; *Pterospermites Whitei* Ward, Ann. Rep. U. S. Geol. Surv. 6: 556. pl. 56, f. 5, 6 (1885), a fossil species, is published with a figure, but without a description.

(a) Names published for primary subdivisions of species are treated as subspecific names, however designated by their authors.

EXAMPLES.—*Juglans alba minima* Marsh. Arb. Am. 68 (1785); *Scirpus maritimus* β *fluvialis* Torr. Ann. Lyc. N. Y. 3: 324 (1836); *Zizia aurea* var. *Bebbii* Coult. & Rose, Bot. Gaz. 12: 138 (1887); these are primary divisions of species, which are recognizable as subspecies.

- (b) In the transfer of a species from one genus to another the original specific name is retained, unless the resulting binomial has been previously published.

EXAMPLES.—*Bromus giganteus* L. Sp. Pl. 77, is *Festuca gigantea* (L.) Vill. Hist. Pl. Dauph. 2: 110 (1787); *Arum triphyllum* L. Sp. Pl. 965, is to be known as *Arisaema triphyllum* (L.) Torr. Fl. N. Y. 2: 239 (1843), not as *Arisaema atrorubens* Blume, Rumphia, 1: 97 (1835); *Laurus Sassafras* L. Sp. Pl. 371, is to be known as *Sassafras Sassafras* (L.) Karst. Deutsch. Fl. 505 (1881), not as *Sassafras officinale* Nees & Eberm. Handb. Med.-pharm. Bot. 2: 418 (1831); however, *Schoenus pusillus* Sw. Nov. Gen. & Sp. Pl. 20 (1788), when transferred to *Rynchospora*, is not to be known as *Rynchospora pusilla* (Sw.) Griseb. Kar. 123 (1857), because prior to 1857 the same binomial had been used for another species, *Rynchospora pusilla* Chapm. (1849).

- (c) A subspecies elevated to specific rank retains the same name, unless the resulting binomial has been previously published.

EXAMPLES.—*Sparganium simplex androcladum* Engelm. in A. Gray, Man. ed. 5, 481 (1867), if regarded as a distinct species, becomes *Sparganium androcladum* (Engelm.) Morong, Bull. Torrey Club, 15: 78 (1888); however, *Juncus acuminatus robustus* Engelm. Trans. Acad. Sci. St. Louis, 2: 463 (1868), does not become *Juncus robustus* (Engelm.) Coville in Britt. & Brown, Ill. Fl. 1: 395 (1896), because prior to 1896 the binomial had been used for another species, *Juncus robustus* S. Wats. Proc. Am. Acad. 14: 302 (1879).

CANON 10. A generic or subgeneric name is published when it has been printed and distributed (1) with a generic or specific description (or in palaeobotany a figure) and a binomial specific name, (2) with a generic and specific name and the citation of a previously published description, or (3) with a reference to a specific description, which is associable by citation with a previously published binomial species.

EXAMPLES.—*Pachysandra* Michx. Fl. Bor. Am. 2: 177 (1803), is published with a generic and specific description and a binomial specific name; *Brasenia* Schreb. ex Gmel. Syst. 2: 853 (1791), is published with a generic description and a binomial specific name; *Silphium* L. Sp. Pl. 919 (1753), is published with a specific description and a binomial specific name; *Poacites* Schloth. Petrefact. 416. pl. 26, f. 1, 2 (1820), a fossil genus, is published with figures and a binomial specific name, but without a description; *Nyssa* L. Sp. Pl. 1058 (1753), is published with a generic and specific name and the citation of previously published descriptions; *Dryopteris* Adans. Fam. Pl. 2: 20 (1763), is published with a reference to a specific description associable by citation with the previously published *Polypodium Filix-mas* L. Sp. Pl. 1090 (1753), inasmuch as both Adanson and Linnaeus cite *Filix mas* of Fuchs.

CANON 11. Names of subtribes, orders, and intervening groups are published when they have been printed and distributed with direct or indirect citations of component genera.

EXAMPLES.—*Moraceae* Lindl. Veg. Kingd. 266 (1847), is published with the citation of component genera; *Ophioglossales* Engler, Syll. ed. 2, 63 (1898), is published with the citation of component genera.

CANON 12. A name is not published by its citation in synonymy, or by incidental mention.

EXAMPLES.—*Echeveria spicata*, cited by De Candolle, Prodr. 3: 349 (1828), as a synonym of *Fouquieria formosa*, is not published, and does not invalidate *Echeveria* DC. published on page 401 of the same volume; *Acrostichum Plumieri* "Desv. herb.," cited as a synonym of *A. viscosum* in Fée, Mém. Fam. Foug. 2: 46 (1845), is not published, and does not invalidate *Acrostichum Plumieri* Fée, published as a species on page 50 of the same work; *Hormisus opuntiioides* Targ., cited by Bertoloni, Amoén. Ital. 316 (1819), as a synonym of *Fucus Sertolara* Bertol. (= *Halimeda Tuna*), is not thereby published.

CANON 13. Of names published in the same work and at the same time, those having precedence of position are to be regarded as having priority.

EXAMPLES.—*Alsine* L. Sp. Pl. 272, is to be regarded as having priority over *Stellaria* L. Sp. Pl. 421; *Aira spicata* L. Sp. Pl. 63, is to be regarded as having priority over *Aira spicata* L. Sp. Pl. 64; *Hibiscus Moscheutos* L. Sp. Pl. 693, is to be regarded as having priority over *H. palustris*, which it precedes on the same page.

Section IV. Application of Names.

CANON 14. The nomenclatorial type of a species or subspecies is the specimen to which the describer originally applied the name in publication.

EXAMPLES.—*Polypodium marginale* L. Sp. Pl. 1091, is typified by the designation of a specimen collected in Canada by Kalm; *Stachys arenicola* Britton, Man. 792 (1901), is typified by the designation of a specimen from Staten Island, New York; *Carex intumescens Fernaldii* Bailey, Bull. Torrey Club, 20: 418 (1893), is typified by a specimen collected at Cedar Swamp, Aroostook County, Maine, by M. L. Fernald.

(a) When more than one specimen was originally cited, the type or group of specimens in which the type is included may be indicated by the derivation of the name from that of the collector, locality or host.

EXAMPLES.—*Eriogonum Porteri* Small, Bull. Torrey Club, 25: 41 (1898), is based on several specimens, of which the one collected by T. C. Porter is the type; *Gaillardia arizonica* A. Gray, Syn. Fl. N. Am. 1²:

353 (1884), is based on several specimens, of which the one collected by Palmer in Arizona is the type; *Cuscuta Cephalanthi* Engelm. Am. Jour. Sci. 43: 336 (1842), is based on specimens from several hosts, of which the one from *Cephalanthus* is the type.

- (b) Among specimens equally eligible, the type is that first figured with the original description, or in default of a figure the first mentioned.

EXAMPLES.—*Calyptridium roseum* S. Wats. Bot. King's Exp. 44. pl. 6, f. 6-8 (1871), is based on at least three specimens, of which the one figured is the type; *Arnica cordifolia* Hook. Fl. Bor. Am. 1: 331 (1833), is based on two specimens, neither of which is figured, and the one first mentioned, which was collected by Drummond in alpine woods of the Rocky Mountains, is the type.

- (c) In default of an original specimen, that represented by the identifiable figure or (in default of a figure) description first cited or subsequently published, serves as the type.

EXAMPLES.—*Trillium sessile* L. Sp. Pl. 340, is based on three citations, of which the second is the type, being accompanied by a figure; *Centaurea Scabiosa* L. Sp. Pl. 913, is based on a number of citations, of which the first mentioned is the type, as no figures are cited.

CANON 15. The nomenclatorial type of a genus or subgenus is the species originally named or designated by the author of the name. If no species was designated, the type is the first binomial species in order eligible under the following provisions:

- (a) The type is to be selected from a subgenus, section or other list of species originally designated as typical.

EXAMPLES.—*Psilogramme* Kuhn, Festschr. 50-Jähr. Jub. Königs. Realschule zu Berlin, 332 (1882), is typified by the first mentioned species of the second section *Eupsilogramme*, and not from species included in the first section *Jamesonia*, which is based on a generic name previously published; *Phania* DC. Prodr. 5: 114 (1826), is typified by *P. multicaulis* DC., the only species of the section *Euphania*.

- (b) A figured species is to be selected rather than an unfigured species in the same work; or, in the absence of a figure, preference is to be given to a species accompanied by the citation of a figure.

EXAMPLES.—*Lespedeza* Michx. Fl. Bor. Am. 2: 70 (1803), is typified by *L. procumbens* Michx. loc. cit. pl. 39, the species first figured; *Basanacantha* Hook. f. in Benth. & Hook. Gen. Pl. 2: 82 (1873), is typified by *Randia tetracantha* (Cav.) DC., the second species cited, as this had been figured by Cavanilles, whereas *Randia Humboldtiana* DC., the species first mentioned by Hooker, had not been figured.

- (c) The types of genera adopted through citations of nonbinomial literature (with or without change of name), are to be selected from those of the original species which receive names in the first binomial publication. The genera of Linnaeus' *Species Plantarum* (1753) are to be typified through the citations given in his *Genera Plantarum* (1754).

NOTE.—The *Species Plantarum* contains no generic references, but the 1754 edition of the *Genera Plantarum* was evidently prepared at the same time and was in effect a complementary volume of the same work. It accords much more nearly than other editions with the treatment followed in the *Species Plantarum*, and thus makes it possible to retain more of the Linnaean generic names in their current application.

EXAMPLES.—*Cypripedium* L. Sp. Pl. 951, a genus adopted from Tournefort with a change of his name *Calceolus*, is typified by *Cypripedium Calceolus*, the only species common to both authors; *Seseli* L. Sp. Pl. 259, a genus adopted from Boerhaave, is typified by the second species of Linnaeus, *Seseli montanum*, which is the first in Linnaeus of the species common to both authors; *Silene* L. Sp. Pl. 416, a genus adopted from Dillenius with a change of his name *Visago*, is typified by *Silene anglica*, the first in Linnaeus of the thirteen species figured by Dillenius; *Fritillaria* L. Sp. Pl. 303, a genus adopted from Tournefort, is typified by the fifth species of Linnaeus, *Fritillaria Meleagris*, which is one of the three species included in *Fritillaria* by both authors, and is selected from these three because it is the one figured by Tournefort.

- (d) When a prebinomial generic name is displaced by the publication of a generic name within binomial usage, the application of the displaced name to a species under the new generic name designates the type.

EXAMPLE.—*Dianthus* L. Sp. Pl. 409, a genus adopted from Tournefort with a change of his name *Caryophyllus*, is typified by *Dianthus Caryophyllus*, one of the fifteen original species of Linnaeus.

- (e) The application to a genus of a former specific name of one of the included species, designates the type.

EXAMPLES.—*Amsonia* Walt. Fl. Car. 98 (1788), is typified by *Tabernaemontana Amsonia* L., one of its two original species; *Sordaria* Ces. & DeN. Comm. Soc. Critt. Ital. 1: 225 (1863), is typified by *Sphaeria Sordaria* Fr., one of its twelve original species.

- (f) To avoid change in the current application of a Linnaean generic name, a well-known economic species may be selected as the type, in accordance with the principle stated by Linnaeus (Phil. Bot. 197. 1751): "Si genus receptum, secundum jus naturae et artis, in plura dirimi

debet, tum nomen antea commune manebit vulgatissimae et officinali plantae."

EXAMPLES.—*Poa* L. Sp. Pl. 67, is typified by *P. pratensis* L., the commonest of its original species; *Mollugo* L. Sp. Pl. 89, is typified by *M. verticillata* L., the commonest of its original species.

Section V. Rejection of Names.

CANON 16. A name is rejected when preoccupied (homonym).

- (a) A specific or subspecific name is a homonym when it has been published for another species under the same generic name. Two subspecies of the same genus shall not retain the same name.

EXAMPLES.—*Acer saccharinum* Wang. Amer. 36. pl. 2, f. 26 (1787), is a homonym of *Acer saccharinum* L. Sp. Pl. 1055 (1753); *Vaccinium myrtilloides* Hook. Fl. Bor. Am. 2 : 32 (1834), is a homonym of *Vaccinium myrtilloides* Michx. Fl. Bor. Am. 1 : 234 (1803), and is rejected whether the latter species is regarded as distinct or not; *Juncus nodosus megacephalus* Torr. Fl. N. Y. 2 : 326 (1843), is a homonym of *Juncus megacephalus* M. A. Curtis, Boston Jour. Nat. Hist. 1 : 132 (1835); *Chrysopsis pilosa* (Walt.) Britton, Mem. Torrey Club, 5 : 316 (1894), is a homonym of *Chrysopsis pilosa* Nutt. Jour. Acad. Nat.-Sci. Phila. 7 : 66 (1834), and is to be rejected, notwithstanding the fact that *Erigeron pilosum* Walt. was published in 1788; *Carex scoparia moniliformis* Tuckerm. Enum. Meth. Car. 17 (1843), and *Carex straminea moniliformis* Tuckerm. loc. cit., can not both be maintained.

- (b) A generic or subgeneric name is a homonym when previously published, or proposed in print, for another genus.

EXAMPLES.—*Torreya* Arn. Ann. Nat. Hist. 1 : 130 (1838), is a homonym of *Torreya* Raf. Am. Mo. Mag. 3 : 356 (1818), of *Torreya* Raf. Jour. Phys. 89 : 105 (1819), of *Torreya* Spreng. Neue Entdeck. 2 : 121 (1821), and of *Torreya* Eat. Man. ed. 5, 420 (1829); *Rivularia* Ag. Syn. Alg. Scand. xxxviii (1817), is a homonym of *Rivularia* Roth, Cat. 1 : 212 (1797); *Nesaea* Lamour. Nouv. Bull. Soc. Philom. 3 : 185 (1812), is a homonym of *Nesaea* Commers. ex Juss. Gen. Pl. 332 (1789); *Bulliarda* DC. Bull. Soc. Philom. 3⁴⁹ : 1 (1801), is a homonym of *Bulliarda* Neck. Elem. 2 : 321 (1790).

- (c) Similar names are to be treated as homonyms only when they are mere variations in the spelling of the same word; or in the case of specific and subspecific names, when they differ only in adjective or genitive termination.

EXAMPLES.—*Penicillus* and *Penicillium*, *Callitriche* and *Calothrix*, *Nematostylis* and *Nematostylis*, *Pterigophyllum* and *Pteridophyllum*, may be maintained; *Cyathophora* and *Cyathophorum*, *Asterocarpus* and *Astrocarpus* can not be maintained. *Greenei* and *Greenii*, named for different

persons, Greene and Green, may be maintained in the same genus; *virginicus*, *virginianus* and *virginiensis*, *oreganus* and *oregonensis*, *Hookeri* and *Hookerianus*, can not be maintained in the same genus.

CANON 17. A name is rejected when there is an older valid name based on another member of the same group (metonym).

EXAMPLES.—*Meibomia* Heist. ex Adans. Fam. Pl. 2: 509 (1763), is based on *Hedysarum canadense* L. Sp. Pl. 748, and *Desmodium* Desv. Jour. de Bot. II. 1: 122 (1813), is typified by *Hedysarum asperum* Poir. Encycl. Suppl. 6: 408 (1804), consequently if these species are regarded as congeneric the name *Desmodium* is to be rejected; *Boletopsis* P. Henn. Nat. Pflanzenf. 11^{***}: 194 (1899), cannot stand as a genus to include a section bearing the name *Boletinus* Kalchb., the latter having been established as a genus in 1877; *Sisymbrium altissimum* L. Sp. Pl. 659 (1753), *Sisymbrium Sinapistrum* Crantz, Stirp. Austr. ed. 2, 52 (1769), and *Sisymbrium pannonicum* Jacq. Coll. 1: 70 (1786), have different types, but if these are regarded as belonging to the same species, the two later names are metonyms of that of Linnaeus.

CANON 18. A name is rejected when there is an older valid name based on the same type (typonym).

EXAMPLES.—*Miegia* Pers. Syn. 1: 101 (1805), is a typonym of *Arundinaria* Michx. Fl. Bor. Am. 1: 73 (1803), both being based on the same species; *Asplenium Vincentis* Christ, Bot. Jahrb. 24: 109 (1897), is a typonym of *A. Guildingii* Jenm. Gard. Chron. III. 15: 70 (1894), both being based on H. H. Smith's no. 1346 from St. Vincent.

CANON 19. A name is rejected when the natural group to which it applies is undetermined (hyponym).

(a) A specific or subspecific name is a hyponym when it has not been connected with a description identifiable by diagnostic characters or by reference to a type specimen, figure or locality.

EXAMPLES.—*Gentiana hybrida* Raf. Med. Rep. II. 5: 353 (1808), is a hyponym, as no diagnosis is published; *Lechea furfuracea* Raf. New Fl. Am. 1: 92 (1836), is a hyponym, as its description is not identifiable.

(b) A generic or subgeneric name is a hyponym, when it is not associable, at least by specific citation, with a binomial species previously or simultaneously published; or when its type species is not identified.

EXAMPLES.—*Adodendrum* Necker, Elem. 1: 214 (1790), and *Calesiam* Adans. Fam. Pl. 2: 446 (1763), are hyponyms, because their authors neither named a binomial species nor cited a species which had previously received a binomial name; *Nudilus* Raf. Atl. Jour. 176 (1833), is a hyponym, as its type species, *N. paradoxus*, has not been identified.

PART III. ORTHOGRAPHY AND CITATION.

Section I. Orthography.

1. The original orthography of names is to be maintained, except in the following cases; the change not to affect priority.

(a) Manifest typographical errors may be corrected.

EXAMPLES.—*Scoria* Raf. is a misprint for *Hicoria*; *Rumhora* Raddi is a misprint for *Rumohra*, named for K. von Rumohr.

(b) Adjectival names of species and subspecies agree in gender with the generic name with which they are associated.

EXAMPLES.—*Polygonum articulatum* L. = *Polygonella articulata* (L.) Meissn.; *Sisymbrium amphibium palustre* L. = *Roripa palustris* (L.) Bess.

(c) Generic names derived from personal names should be feminine, and if originally of other forms should be corrected.

EXAMPLES.—*Lippius* S. F. Gray, *Kantius* S. F. Gray, *Pallavicinius* S. F. Gray, should be changed to *Lippia*, *Kantia*, and *Pallavicinia* and yet date from 1821 when originally published.

(d) In the case of names proposed in works in which v and j were used as vowels or u and i as consonants they should be corrected to agree with modern usage.

EXAMPLES.—*Euonymus*, not *Evonymus*; *Naias*, not *Najas*; *Neuropteris*, not *Neuropteris*; *Rivularia*, not *Riuularia* (*Rivularia*); *Jungia*, not *Iungia*.

2. Generic names should be written with initial capital letters.

EXAMPLES.—*Desfontainea*, not *desFontainea*; *Durvillaea* not *d'Urvillaea*.

3. If capital letters are to be used for specific names they should be employed only for substantives and for adjectives derived from personal names.

EXAMPLES.—*Asplenium Trichomanes* L.; *Uromyces Trifolii* (Hedw.) Lév.; *Trichomanes Smithii* Hook.; *Galium Boryanum* Walp.

4. The publication of names of bilingual derivation should be avoided, but published names are not to be rejected on account of such derivation.

EXAMPLES.—*Liquidambar* is Latin-Arabic; *Fimbristylis* is Latin-Greek; *Actiniceps* is Greek-Latin.

5. The names of hybrids may be written as follows:

(a) A hybrid may be named by placing the names of the

parent species or subspecies in alphabetical order, connected by the sign \times ; but in hybrids experimentally produced, or in which the sex of the parents is known, the female parent is to be written first, and the sex indicated by the signs ♀ , ♂ .

EXAMPLES. — *Carex debilis* \times *virescens*; *Digitalis lutea* ♀ \times *purpurea* ♂ .

- (b) A hybrid may be named when desirable like a species or subspecies, provided the binomial or trinomial is preceded by the sign \times , designating it as a hybrid.

EXAMPLE. — \times *Salix capreola* Kern.

- (c) A hybrid between species of different genera may be named by attaching the specific name to the generic name of the female parent, or, if the sex of the parents is unknown, to the generic name coming first in alphabetical order.

EXAMPLE. — \times *Ammophila baltica* Link = *Ammophila arenaria* \times *Calamagrostis Epigeios*.

- (d) A hybrid derived from parents one or both of which are of hybrid origin, may be named by including the name of the hybrid parent in parentheses.

EXAMPLE. — *Salix* (*aurita* \times *repens*) \times *cinerea*.

- (e) Preponderance of one parent over the other may be designated by the signs $>$, $<$.

EXAMPLES. — *Mentha longifolia* $>$ \times *rotundifolia*; *Mentha longifolia* \times $<$ *rotundifolia*.

Section II. Citation of authors.

- I. An author-citation following a name refers to the author by whom the name was first published; the author's name may be abbreviated, but never in such a manner as to result in ambiguity.

EXAMPLES. — Spreng. for Sprengel, not Spr., to distinguish from Spruce and others; Michx. for Michaux, not Mich., to distinguish from Micheli; S. Wats. for Sereno Watson, to distinguish from H. C. Watson.

2. In the following cases the name of the original author should appear in parentheses, followed by that of the author who first published the name in its accepted form and application.

- (a) A specific name originally combined with a different generic name, or a subspecific name originally combined with a different binomial.

EXAMPLES.—*Moneses uniflora* (L.) A. Gray, for the plant originally described as *Pyrola uniflora* by Linnaeus and subsequently first published as *Moneses uniflora* by Asa Gray; *Chondrophora nauseosa glabrata* (A. Gray) Rydberg for *Bigelovia graveolens* var. *glabrata* A. Gray.

- (b) A generic name adopted through citation from a publication issued prior to the first edition of Linnaeus' *Species Plantarum* (1753).

EXAMPLES.—*Linnaea* (Gronov.) L.; *Anthoceros* (Mich.) L.; *Valerianella* (Tourn.) Poll.

- (c) A name applied to a category different from that in which it was first proposed.

EXAMPLES.—*Salix cordata angustata* (Pursh) Anders., originally *Salix angustata* Pursh; *Actaea rubra* (Ait.) Willd., originally *Actaea spicata* var. *rubra* Ait.; *Ardisia* subg. *Pickeringia* (Nutt.) Mez, originally genus *Pickeringia* Nutt.; *Raphidostegium* (Br. & Sch.) De Not., originally *Rhynchostegium* subg. *Raphidostegium* Br. & Sch.

3. A comma between the name of the plant and the name of the author is undesirable.

EXAMPLES.—*Rumex* L., not *Rumex*, L.; *Phacelia congesta* Hook., not *Phacelia congesta*, Hook.; *Ilysanthes dubia* (L.) Barnhart, not *Ilysanthes dubia*, (L.), Barnhart.